

## **Appendix 2**

### **Rural Telephone Bank**

### **Asset / Liability Management Presentation**

March, 2002

#### **Alternate Corporate Structures for Privatized RTB**

**Depository Institutions** control the largest proportion of assets. This category includes commercial banks, savings banks, savings and loan associations, and credit unions; they are grouped together because of their traditional emphasis on deposits, their primary financial liabilities. The depository structures would be least effective for RTB if wants to maintain its core business of providing loans and capital to Rural America.

**Finance Companies** specialize in loans to businesses and consumers. Their financial liabilities are quite different from those of depositories, however they acquire most of their funds by selling commercial paper and bonds or borrowing from their rivals, the commercial banks. Finance companies typically are corporations organized under, and governed by general state corporate law. In contrast to commercial banks, finance companies are relatively free of regulation and government oversight. Aside from licensing, consumer protection, and securities laws, the activities of finance companies are not regulated.

**Cooperative Associations** is a democratic association of persons organized to furnish themselves as An economic service under a plan that eliminates entrepreneur profit and that provides for substantial equality in ownership and control. Co-ops have as their goal the common advantage or advancement of their members.

Given RTB's desire to operate in a similar manner and serve the rural telephone market the cooperative structure seems most appropriate since the cooperative structure is familiar to RTB and its stockholders, and only minimal modifications to the current law would be necessary to implement the cooperative structure.

## Asset / Liability Management

### Asset / Liability Management (ALM) – Background

Asset Liability Management is the management of the net interest margin to ensure that its level and riskiness are compatible with the risk/return objectives of the institution.

ALM is more than just managing individual asset and liability categories well. It is an integrated approach to financial management, requiring simultaneous decisions about the types and amounts of financial assets and liability the institution holds, or the asset/liability mix and volume. In addition ALM requires an understanding of a broad range of financial markets in which the institution operates. Among the most significant issues are how interest rates are determined, why they change over time, and what impact those changes have on the Net Interest Margin, and the value of an institution's assets and liabilities.

#### What is the Net Interest Margin (NIM)

Because financial institutions interact in the financial markets by issuing financial liabilities and purchasing financial assets, one critical element of the financial management of financial institutions is managing the "spread" the dollar difference between the interest earned on assets and the interest cost of liabilities. This spread expressed as a percentage of total assets is called the net interest margin.

$$\text{NIM} = \frac{\text{Interest on Assets} - \text{Interest Cost of Liabilities}}{\text{Total Assets}}$$

### Commercial Bank ALM Considerations

#### - Asset / Liability Management in Depository Institutions

**Understanding the Balance Sheet-** In broad terms a depository institution's assets represent the uses of funds it has been able to attract, the bank's liabilities and net worth record the specific sources of funds. If RTB wants to pursue a depository institution approach its balance sheet and will look similar to below.

##### Assets

Cash and Cash Due from Banks  
Short Term Instruments  
Investment Securities  
Trading Account Securities  
Loans (Commercial Loans, Consumer Loans, Real Estate Loans)  
Direct Lease Financing  
Bank Premises and Equipment  
Other Real Estate Owned  
Other Assets

Not Likely At RTB

##### Liabilities and Net Worth

Demand Deposits  
NOW and Super NOW  
Pass Book Savings  
Money Market Accounts  
Savings Certificates  
CD's \$100,000 and over  
Short Term Borrowings  
Other Liabilities  
Long Term Debt  
Shareholders Equity

Not Likely At RTB

## Commercial Bank ALM Considerations

### - Asset / Liability Management in Depository Institutions

**Understanding the Income Statement-** If RTB wants to pursue a depository institution approach its income statement will look similar to below.

#### Interest Income

Short Term Instruments  
Taxable Securities  
Tax Exempt Securities  
Commercial Loans  
Consumer Loans  
Real Estate Loans  
Other Loans

**Not Likely At RTB**

#### Non Interest Income

Service Charge and fees  
Other Non Interest Income

#### Interest Expense

NOW and Super NOW Accounts  
Passbook Savings  
Money Market Accounts  
Savings Certificates  
CD's  
Other Time Deposits  
Short Term Borrowing  
Other Liabilities  
Long Term Debt

**Not Likely At RTB**

#### Non Interest Expense

Provision for Loan Losses  
Salaries and Benefits  
Occupancy Expense  
Other Expenses  
Income Taxes  
Cash Dividends Paid

## Commercial Bank ALM Considerations

### - Short Term Instruments Purchased by Commercial banks

Security	Issuer	Brief Description
Federal funds sold <b>Not Likely At RTB</b>	Other Commercial Banks	Excess reserves of banks usually sold to another bank to provide earning assets to selling bank. Most mature daily but can be easily renewed.
Treasury bills	Federal government (Treasury, Federal Reserve)	Highly marketable debt with no credit risk; sold on a discount basis
Agency notes	Government agencies	Obligations of federal agencies; very high quality and nearly as marketable as federal debt
State and local notes	State and local governments	Short term tax or bond anticipation obligations of state and local governments; interest is generally tax exempt for banks but not for other investors
Commercial paper <b>Not Likely At RTB</b>	Business or finance companies	High-quality business promissory notes; sold on discount basis
Negotiable CDs <b>Not Likely At RTB</b>	Commercial banks and other financial institutions	Large interest bearing deposits that can be traded before maturity
Banker's Acceptances <b>Not Likely At RTB</b>	Businesses backed by commercial banks	Paper used to finance international trade, backed by commercial banks to improve credit quality

**Commercial Bank ALM Considerations**  
**- Longer-Term Securities Purchased by Commercial banks**

Security	Issuer	Brief Description
Treasury notes and bonds	Federal Government	Longer term interest bearing notes and bonds that are obligations of the federal government.
Agency bonds	Government agencies	Longer term interest bearing bonds of federal agencies
General Obligations	State and local governments	Bonds backed by full faith, credit and taxing power of issuing unit; interest may be partially tax exempt
Revenue Bonds	State and local governments	Bonds backed by revenues from specific projects or tax source.
Corporate Bonds	Business	Interest bearing long term business debt with varying degrees of quality and marketability
Mortgage backed bonds	Business	Interest bearing long term debt backed by grouping of mortgages and guarantee of government agency

**Commercial Bank ALM Considerations**  
**- Steps in Managing the Security Portfolio**

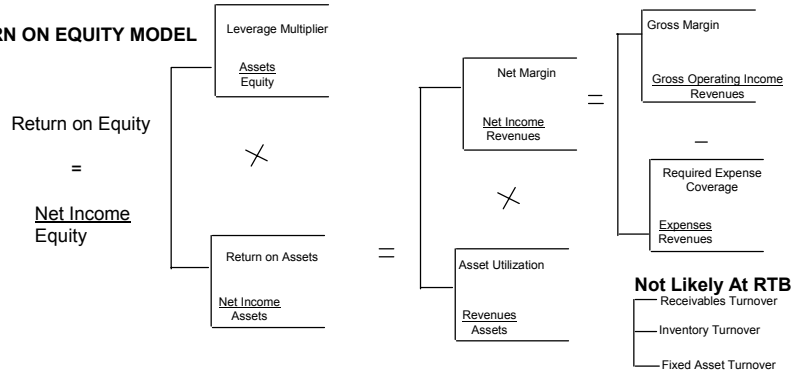
Management of the security portfolio will differ among commercial banks because of differences in size, location, condition, loan demand, and managerial capabilities. There are however five basic steps that should lead to sound and flexible bank security portfolio management

Establishing General Criteria and Objectives	Policies for managing the security portfolio often called investment portfolio generally should be in writing. The first section should be a clear statement of the objectives of the securities. In the broadest sense these are the same for all banks: to assist in providing liquidity, to obtain income, to maintain high quality in the portfolio, to keep the bank's funds fully employed, and to provide an adequate supply of liquidity for pledging. Objectives should be challenging but achievable, understandable and measurable.
Coordinating Portfolios with Expected External Environment	Forecasting of at least general trends in key economic indicators –growth of the economy, interest rates, inflation, unemployment etc- is an important step in the management of the security portfolio.
Inventorying Security Management Needs of the Bank	Bank management must formulate specific portfolio policies suited to the characteristics and conditions of its bank. There are at least six areas that management needs to investigate the appropriate inventory of the security management of the bank They are: Coordinating investment and Liquidity Planning; Evaluating Pledging Requirement; Assessing the Risk Position; Determining the Tax Position; Estimating the need for diversification
Formulating Policies and Strategies for Managing the Security Portfolio	The bank should formulate policies and strategies for managing the security portfolio that are consistent with the bank's written objectives, its economic forecast, and its inventoried needs.
Delegating authority but Maintaining Control	The delegation of authority and retention are essential parts of security portfolio policy. The board of directors have the ultimate responsibility, and it should share the responsibilities for policy determination with other members of senior management. The portfolio manager should be in charge of day to day management.

## Commercial Bank ALM Considerations - Model for Measuring Risks and Returns in Banking

**A Model for Measuring Returns and Risks in Banking** – A bank's performance will affect its valuation in the market, its ability to acquire other banks or to be acquired at a good price and its ability to be funded in the deposit and financial markets. Risk / return measurements is necessary for an acceptable future performance.

### RETURN ON EQUITY MODEL



## Commercial Bank ALM Considerations - Return and Risk Measurements

How well has the Bank performed? Has it earned acceptable returns? What risks has it taken to achieve these returns? The measurements below help answer some of those questions. Once such calculations are completed the next concern is the interpretation of the resulting return/risk ratios. First, a bank's own return/risk measures over time often provide useful insights. Second, comparison of a bank's return/risk measures with peers is helpful in identifying areas of strengths and weaknesses.

<input type="checkbox"/> Interest Margin	=	Interest Income-Interest Expense/Earning Assets	<b>Very Likely for RTB</b> <b>Good Business</b> <b>Measures</b>
<input type="checkbox"/> Net Interest Net Margin	=	Interest Income/Revenues	
<input type="checkbox"/> Asset Utilization	=	Revenues/Assets	
<input type="checkbox"/> Return on Assets	=	Net Income/Assets	
<input type="checkbox"/> Leverage Multiplier	=	Assets/Equity	
<input type="checkbox"/> Return on Equity	=	Net Income/Equity	
<input type="checkbox"/> Liquidity Risk	=	Liquid Assets-Short Term Borrowing/ Total Deposits	
<input type="checkbox"/> Interest Rate Risk	=	Interest Sensitive Assets/Interest Sensitive Liabilities	
<input type="checkbox"/> Credit Risk	=	Past Due Loans/Net Loans	
<input type="checkbox"/> Capital Risk	=	Equity/Risk Assets	
<input type="checkbox"/> Debt/Equity Ratio	=	Debt + Liabilities/Total Equity	

The most important ratio is the Return of Equity because it is influenced by how well the bank has performed on all other return categories and indicates whether a bank can compete for private sources of capital in the economy.

**Commercial Bank ALM Considerations**  
**- Measuring and Managing Financial Risks** *Very Important for RTB*  
*Under any Structure*

Financial Risk	Traditional Measures	Lead Measures	Management Techniques
Credit Risk	Loans / Assets Non Performing Loans Loan Losses Reserves for loans	Loan Concentration Loan Growth High Lending Rates Reserves to non operating loans	Credit Analysis Credit Documentation Credit Controls Special Risk Assessment
Liquidity Risk	Loans/Deposits Liquid Assets / Deposits Growth & Expansion Philosophy	Purchased Funds Borrowing Cost Liquid Assets Borrowings/Deposits	Liquidity Plan Contingency Plan Cost / Pricing Models Development of funding sources Duration Analysis
Interest Rate Risk	Interest-sensitive assets Interest-sensitive liabilities Gap Analysis	Gap buckets Duration Dynamic gaps	Dynamic gap management Duration analysis
Leverage Risk	Gap Equity/deposits Equity /assets Capital/assets	Risk adjusted assets Growth in assets vs. growth in equity	Capital planning Sustainable growth analysis Dividend policy Risk adjusted capital policy

**Commercial Bank ALM Considerations**  
**- Additional Constraints**

Four Federal regulators the Fed, the FDIC, the Comptroller of Currency and the NCUA use a uniform rating system known as the CAMELS rating. This system uses the 1 to 5 (best to worst) assessment of an institution's (1) capital (2) assets (3) management (4) earnings (5) liquidity (6) sensitivity

If RTB is privatized the government and rating agencies will subject RTB to a rigorous process. It will consider a number of both qualitative and quantitative factors such evidence of profitability, capital, liquidity, earnings capability. Qualitative factors will include the quality of management and expert personnel, strategies for future, competitive landscape, market share, and target market.

Being a new privatized entity, its lack of a track record as a privatized entity and severe competition in the market place will cause RTB to function poorly at least in the few initial years whereby the very going concern will be questioned.

In conclusion from an Asset /Liability management perspective a commercial bank offers the broadest range of permissible activities, but on the other hand its activities are subject to restrictions and regulations which may be too onerous for RTB.

## Non Depository Institutions – Finance Companies

### Asset / Liability Management in Non Depository Institutions - Finance Companies

Only two things characterize firms that are traditionally considered finance companies.

- ☐ Their lending practices are regulated almost entirely at the state level.
- ☐ Their funds sources are not deposits

Subsidiaries of industrials came to be known as captive finance companies such as General Motors Acceptance Corporation (GMAC) and Ford Motor Credit Corporation where as the others came to be known as independent finance companies. General Electric Capital Corporation which was originally a captive finance company gradually expanded into an independent finance company.

Finance companies are usually willing to accept a higher risk / return exposure on loans than other financial institutions such as banks, in part because they are not deposit taking institutions supervised by either FDIC or other regulators. As a result Finance companies have become an alternative to borrowing from a bank.

## Finance Company ALM Considerations - Balance Sheet of Finance Companies

**Understanding the Balance Sheet-** The assets of Finance Companies are dominated by loans. Most funds are obtained by issuing commercial paper and long term debt. Finance companies are highly leveraged as are most financial institutions. Rating agencies keep close tabs on Finance Companies and their debt instruments.

Assets	→ Not Likely At RTB
Consumer Receivables	
Business Receivables	
Real Estate Loans	
Total Receivables	
Less unearned income and allowance for losses	
Total receivables (net)	
Other Assets	
Total Assets	
Liabilities and Net Worth	
Bank Loans	
Commercial Paper	
Due to Parent ( <b>NOT APPLICABLE for RTB</b> )	
All other liabilities	
Total liabilities	
Net Worth	
Various Classes of Stock	
Total Liabilities and Net Worth	

## Finance Company ALM Considerations - Income Statement of Finance Companies

**Understanding the Income Statement-** Little information is available on the income, expenses and profitability of finance companies because Federal Reserve surveys do not include income statement information

- ☐ Gross income / Total Assets
- ☐ Operating Expenses / total assets
- ☐ Cost of borrowed funds/ total assets
- ☐ Net Income / total assets (return on assets)
- ☐ Net income / net worth (return on net worth)



## Finance Company ALM Considerations - Income Statement of Finance Companies

### Asset Management

Because Finance companies do not offer transactions accounts they are not subject to reserve requirements or unanticipated withdrawal of funds by investors. Maturity dates on bank notes commercial paper, and long term debt are known in advance, so liquidity planning is easier for finance companies than it is for commercial banks.

#### Default Risk

Like commercial banks, finance companies must assess creditworthiness of businesses or consumers. Issues central to credit analysis apply to management of finance companies. Finance companies also face special credit analysis problems because of the types of loans on which they concentrate

#### Unsecured Personal Loans

For the industry as a whole and especially for its many small companies personal cash loans are major assets. These loans are relatively small and the cost of administering is high as a proportion of loan size. Personal cash loans are also unsecured. Together these factors allow the lender to charge a higher interest rate than on auto or other collateralized loans. However with the expected higher yield to the lender comes greater default risk.

#### Interest Sensitivity of Assets

Because finance companies of all sizes rely on short term source of funds, management must be alert to the relationship between asset and liability maturities. The average maturity of commercial and consumer non mortgage loans is shorter than for mortgages. As in commercial banks the objective of minimizing the GAP by matching maturities is to lock in a spread, reducing potential variability in NIM and RONW

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## Finance Company ALM Considerations - Income Statement of Finance Companies

### New Directions in Asset Management

Like commercial banks finance companies are expanding the scope of operations. New directions involve finance companies in financial markets they have previously ignored creating opportunities and challenges. Among them:

- ☐ Home Equity Lines of Credit
- ☐ Secondary Mortgage Markets
- ☐ Secondary Markets for Loans and Leases
- ☐ Issuance of Credit Cards
- ☐ Loan Participation with Commercial Banks

### Liability and Capital Management

Although finance companies lack the benefits of deposit insurance many finance companies especially the largest ones, have a degree of flexibility in financing not shared by banks. Finance companies are not directly subject to capital requirements, nor are they participants in the implicit and explicit interest competition that pervades the consumer deposit market. Still management of finance companies face the same question that managers of commercial bank face. What financial structure will allow the institution to achieve its risk /expected return objectives?

### Raising funds externally: Bond and Commercial Paper Markets

Through skillful negotiation with funds suppliers, large finance companies with access to both the commercial paper and long term bond markets have opportunities to tailor the terms of their financing to interest rate forecasts or to match the maturities of their planned asset structures.

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## Finance Company ALM Considerations - Selected Performance Measurements for Finance Companies

### Market Discipline

One source of market discipline for finance companies is publicly disclosed risk ratings on their bonds and commercial paper. All the major rating agencies – S&P, Moody's, Fitch, Duff&Phelps, focus heavily on asset quality, the primary determinant of future earnings. The views of rating agencies can profoundly affect finance company performance.

Long term debt and commercial paper as sources of funding have grown at a much higher rate than bank loans and other liabilities. This heavy reliance on funds raised through debt markets has increased the importance of credit ratings to finance companies.

### Are Banks Allies or Competitors

Some finance companies depend upon bank financing as their main source of funds. At the same time finance companies compete with banks for access to business and consumer borrowers.

### Use of overall Asset / Liability Techniques

Finance company managers must consider integrated asset/liability management strategies. Among some of the techniques are :

- ☐ Use of secondary asset markets to restructure portfolios
- ☐ Use of variable rate lending
- ☐ Dynamic GAP management on both a maturity and duration basis
- ☐ Use of financial futures to lock in borrowing costs
  - ☐ **SWAPS are the most commonly used hedging vehicles, and could be used to change fixed rate products and costs into variable rate products or costs**

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## Finance Company ALM Considerations - Selected Performance Measures for Finance Companies

### Liquidity

- ☐ Cash / Short Term Debt
- ☐ Receivables Maturing in 12 months / Total Receivables
- ☐ Unused Credit Lines / Open Market Debt

### Credit Risk

- ☐ Direct Cash Loans / Gross Receivables
- ☐ Net Charge-offs / Average Net Receivables

**Many of these measures are Important for the Management of RTB**

### Leverage

- ☐ Total Debt / Net Worth
- ☐ Interest Expense / Average Net Receivables

### Efficiency / Productivity

- ☐ Operating Expenses (exclusive of loan loss expense) / Average Net Receivables
- ☐ Average Monthly Principal Collections / Average Net Monthly Principals
- ☐ Annual Gross Finance Revenues / Average Net Receivables

### Profitability

- ☐ Net Finance Profit / Average Net Receivables
- ☐ Net Interest Margin = (Gross Finance Revenue – Interest Expense) / Average Net Receivables
- ☐ Return on Net Worth = Net Income / Average Net Worth

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<b>Finance Company ALM Considerations</b> <b>- Selected Performance Measures for Finance Companies</b>	
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<b>Important Financial Ratios for Finance Companies</b>	<b>Very Important Considerations for RTB</b>
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The important dimensions of finance company performance are similar to those used to assess depository institution performance: Liquidity and portfolio management, credit quality, leverage, efficiency, and productivity, and profitability.

**Liquidity** – Because finance companies have few investments in short term marketable securities, asset liquidity is best measured by the amount of actual cash on hand relative to the short term obligations of the firm. Like commercial banks, finance companies may also meet liquidity needs through liability management. Comparing the dollar amount of unused credit lines arranged through commercial banks to the amount of open market debt already outstanding provides an indication of the company's ability to generate cash from additional borrowing.

**Credit Risk** – Because personal cash loans are among the riskiest made by finance companies the ratio of these loans to total credit extended by the company suggests the overall riskiness of the portfolio. In addition, a measure of credit risk using net charge-offs is relevant.

**Leverage** – Comparing interest expense with receivables provides a good indication of a firm's debt service burden.

**Efficiency / Productivity** – As with depositories, how well a finance company controls its non lending operating expenses affects its performance.

**Profitability** – Comparing the net profit of financial operations with average net receivables is analogous to measuring the net rate of return on earning assets in other firms.

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<b>Cooperative Structure Benefits</b>	

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## Cooperative Structure Benefits

Cooperative Associations are a democratic association of persons organized to furnish themselves an economic service under a plan that eliminates entrepreneur profit and that provides for substantial equality in ownership and control. Co-ops have as their goal the common advantage or advancement of their members. After examining all the relevant documentation that given the history of RTB a co-op has considerable advantages, in that a co-op structure is similar to RTB and its stockholders & only minimal modifications to the current law would be necessary to implement as a co-op.

The advantages are:

- ☐ The ability to broaden the scope of RTB's client base and business activities
- ☐ The ability to accommodate any expansion of types of credit and related services
- ☐ The ability to leave ownership of RTB's equity in the hands of existing borrowers
- ☐ The ability to attract private placement by outside investors
- ☐ The redemption and retirement of Class A stock and the power to vote using Class B upon Class A stock retirement is consistent with the ownership and control principles of a co-op.
- ☐ The ability to adjust RTB for the modification in tax status as a result of privatization – the repatriation of net earnings to RTB could be used to offset tax consequences (**An Option RTB needs to Explore**)
- ☐ Attractive dividend and patronage features of a co-op can be used to offset current bank pricing criticism

## Cooperative Structure Benefits

There are a variety of corporate structures that a privatized RTB could operate as: 1) Commercial Bank; 2) A Finance Company; or 3) A Cooperative.

Given RTB's desire to operate in a similar manner and serve the rural telephone market the cooperative structure seems most appropriate since the cooperative structure is familiar to RTB and its stockholders, and only minimal modifications to the current law would be necessary to implement the cooperative structure.

Most notably the cooperative structure can limit the client base and overall business activities at the same time be flexible enough to accommodate from an asset/liability point of view any desired expansion of types of credit and related services that could be offered to borrowers. Also the cooperative structure would also leave the ownership of RTB's equity in the hands of existing borrowers and yet at the same time accommodate certain initiatives to attract private investments by outside investors. The current laws' privatization provisions will result in the vesting of control over RTB in the hands of its borrowers upon the redemption and retirement of 51% of the class A stock. At that point, the commercial and cooperative rural telephone companies voting as separate classes, would together hold the power to vote a majority of Class B stock and elect a majority of the institution's board of directors. This change would be consistent with principles of cooperative ownership and control. At the same time private capital could be attracted through the sale to outside investors of non-voting equity stock or voting stock, provided borrowers continued to hold a majority of voting shares.

Additionally a cooperative structure would provide to RTB a very favorable tax status and allow RTB great flexibility in setting interest rates.

## KEY RISK MANAGEMENT COMPONENTS OF ASSET / LIABILITY MANAGEMENT

### RTB - Risk Management Philosophy, Methodology and Framework - *Risk Measurement Tools: An Enterprise Wide Perspective*

Risk management is a continuous and dynamic process that begins at the planning stage and is supported by a consistent risk management methodology and best practice infrastructure. The systematic framework outlined below articulates the need for risk management to encompass a variety of enterprise-wide risk assessments.

#### Monitoring and Controls:

Are control structures adequate or excessive? Does the organization take a risk-based approach to internal control and internal audit? Does the reporting structure enhance performance and encourage efficiency?

#### Vision:

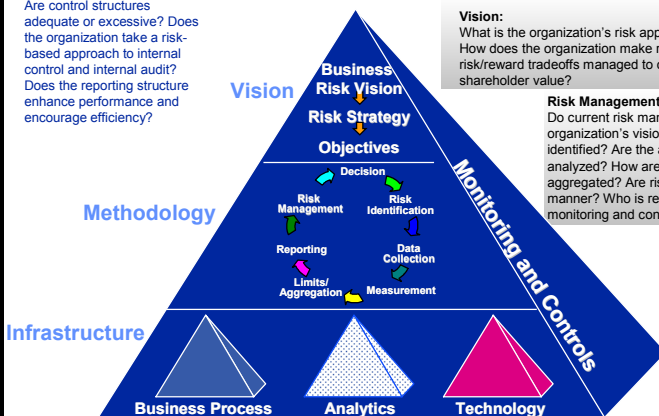
What is the organization's risk appetite relative to its business opportunities? How does the organization make risk management part of its culture? How are risk/reward tradeoffs managed to create competitive advantage and shareholder value?

#### Risk Management Methodology:

Do current risk management processes support the organization's vision of risk management? What risks are identified? Are the appropriate data being collected and analyzed? How are risks measured? How are risk limits set and aggregated? Are risks reported in a timely and accurate manner? Who is responsible for identifying, measuring, monitoring and controlling risk?

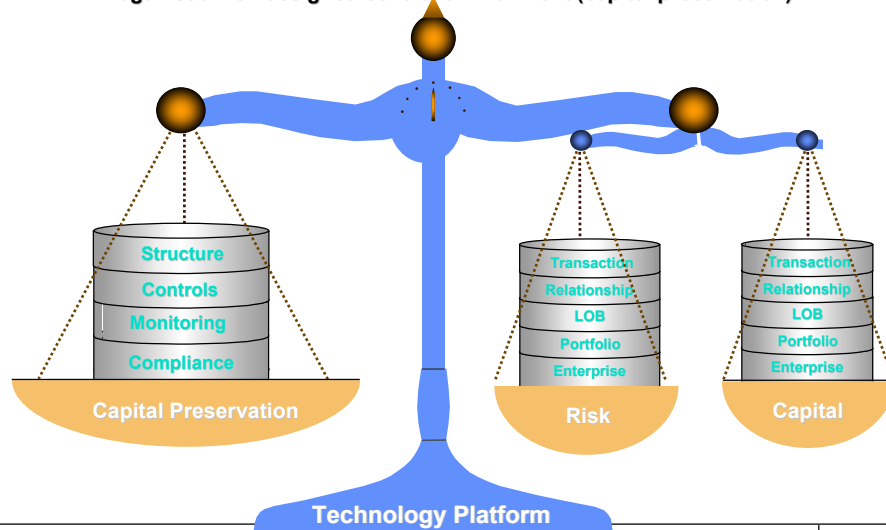
#### Infrastructure:

What analytical tools are used to measure and evaluate risks? Are the tools appropriate for the organization's objectives? Are the business processes supporting the organization's risk philosophy? Do compensation policies reward employees for performance consistent with risk objectives? Does the technology aggregate, warehouse and distribute the data needed to assess risks?



RTB - Risk Management Philosophy, Methodology and Framework -  
 Risk Measurement Tools: An Enterprise Wide Perspective

Risk Management is a process of balancing risk taking and capital (capital optimization)  
 against a well-designed control environment (capital preservation)

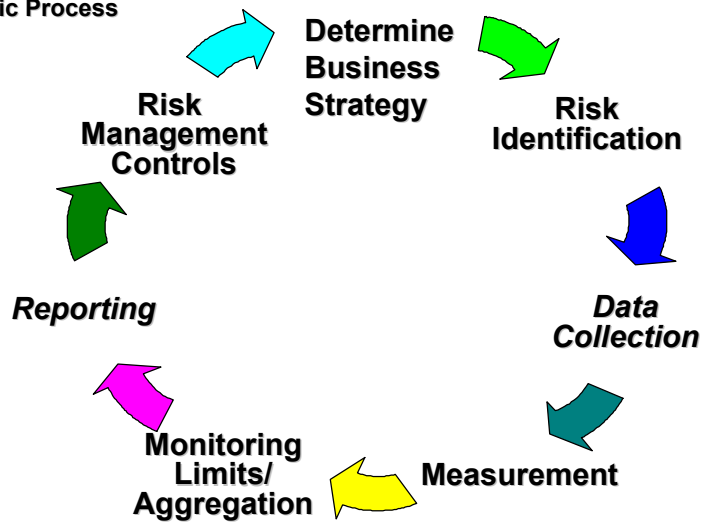


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RTB - Risk Management Philosophy, Methodology and Framework -  
 Risk Measurement Tools: An Enterprise Wide Perspective

Risk Management is a  
 Dynamic Process

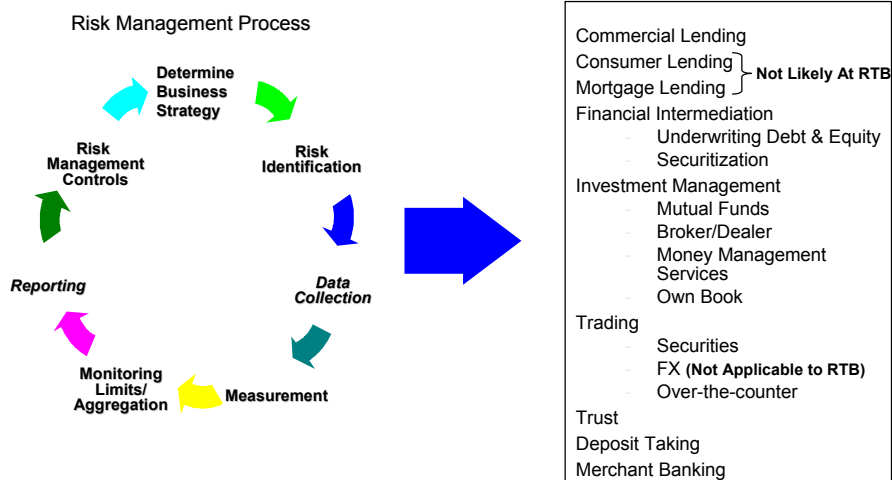


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**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Management Process Implementation within a Bank  
Must Start at the with each Business Line**



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**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Management Process -- Identify business lines, in each business line identify and measure risks, for each risk identify risk mitigants to control the process**

**Business Lines**

Commercial Lending  
~~Consumer Lending~~  
~~Mortgage Lending~~  
Financial Intermediation  
Investment Management  
Trading  
~~Trust~~  
~~Deposit Taking~~  
~~Merchant Banking~~

**Risk Dimensions**

Credit Risk  
Interest Rate Risk  
Liquidity Risk  
Price Risk  
~~Foreign Exchange Risk~~  
Transaction Risk  
Compliance Risk  
Strategic Risk  
Reputation Risk

**Risk Mitigants**

Oversight -- Monitoring & Control  
Policies and Procedures  
Measurement Process  
Compliance Function  
Control Structure  
Limit Structure  
Interest Rate Risk Management and Hedging  
Audit (Internal/External)  
Personnel/Training

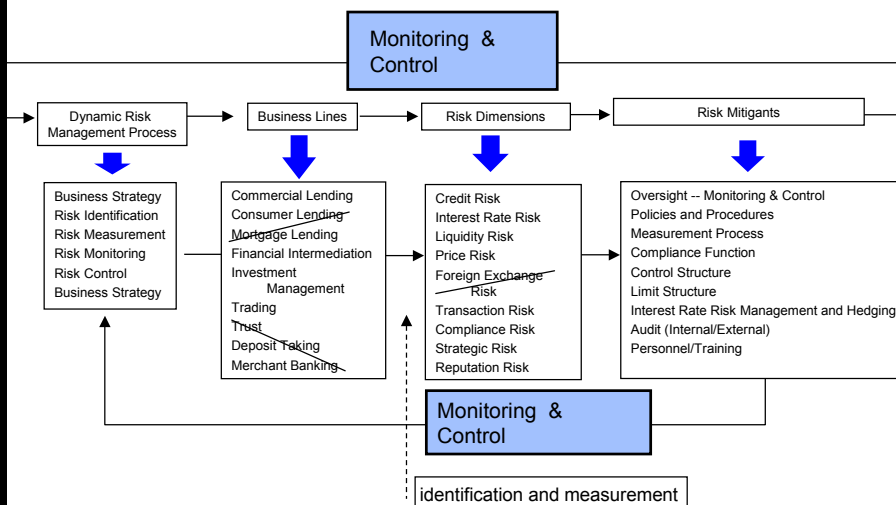
/ = Not Likely At RTB

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**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

Risk Management is a continuous assessment process



**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Management Framework**

- Address all lines of business and all risk dimensions
- Link capital to risk – *The greater the risks the RTB takes the More Capital that is required to cushion the impact of losses from that risk.*
- Define a risk management structure to mitigate inappropriate claims against capital
- Integrate technology into the process to provide timely and accurate management information
- Provide for continuous re-assessment of all of the above



**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Management System Has Four Steps**

**1. Set Standards and Report Risk Exposures Consistently**

Identify Risks  
Quantify Risks (Measurement)  
Monitor Risks

**2. Set Position Limits, Other Performance Measures**

Establish policies, procedures, and controls  
Set specific limits  
Incorporate compliance requirements at point of transaction

**3. Communicate Clear and Specific Guidelines**

Document management's requirements for risk taking and control  
Train "risk approach" down to lowest transaction level

**4. Establish Incentive System Appropriate to Desired Risk Behavior**

Align individual and unit performance expectations and goals with  
compensation programs that relate to behavior expectations

**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Understanding the Forces Driving Risk is Important to Understanding How to  
Manage Risks**

The primary driver of risk is the changing environment !!!

**MACROECONOMICS CHANGES**

unstable economy  
global markets

**TECHNOLOGICAL CHANGES**

telecommunications  
access to data  
analytical break-through

**COMPETITIVE PRESSURES**

informed consumers  
new entrants  
rapid innovation  
mergers

**GOVERNMENTAL INSTIGATED CHANGES**

seeking growth  
seeking efficiency  
seeking to satisfy consumers

This is Very Important  
for RTB, but the Real  
issue is how do we  
measure and monitors  
the key areas

**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Responses to Risks Embedded in Business Lines**

**1. Risks to be AVOIDED**

Reduce chance of idiosyncratic losses from activities  
Shed superfluous risk by devoting resources to risk avoidance  
Absorb only optimal quantity of each risk

**2. Risks that can be TRANSFERRED**

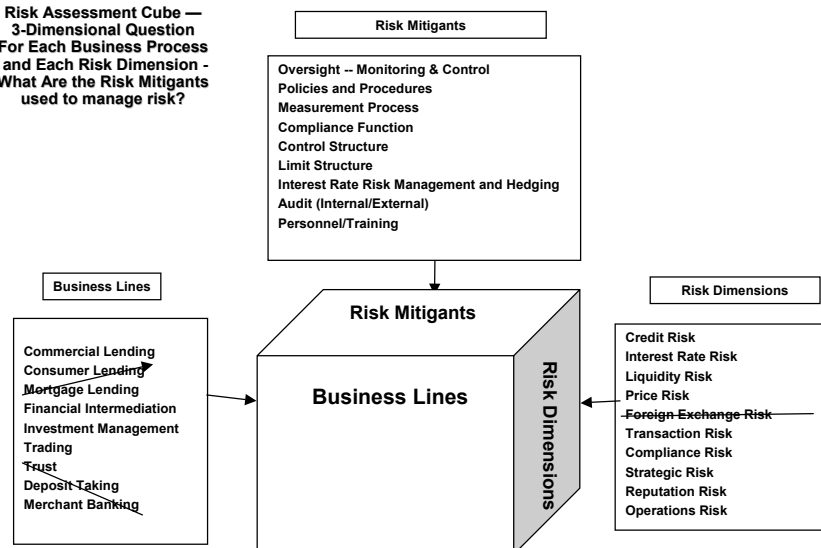
Buy/Sell financial claims to diversify or concentrate portfolio risk  
Sell assets with risks with no competitive advantage  
Sell portions of assets to reduce risks

**3. Risks that must be actively MANAGED**

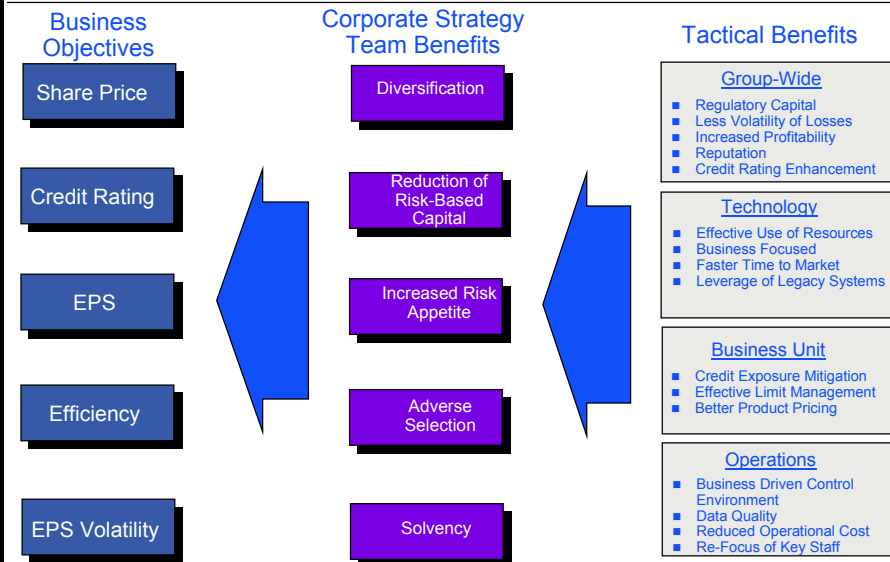
Key lines of business  
Protect proprietary knowledge  
Act as agent for others who cannot hedge/trade  
Avoid moral hazards

**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Assessment Cube —  
3-Dimensional Question  
For Each Business Process  
and Each Risk Dimension -  
What Are the Risk Mitigants  
used to manage risk?**



**RTB - Risk Management Philosophy, Methodology and Framework -**  
**Risk Measurement Tools: An Enterprise Wide Perspective**



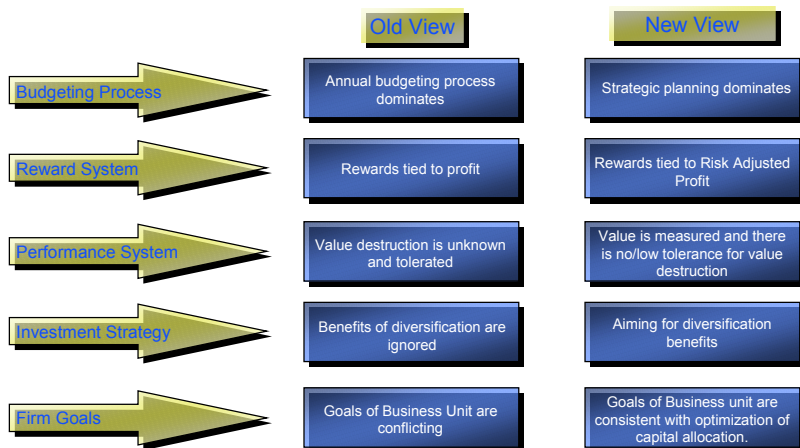
**RTB - Risk Management Philosophy, Methodology and Framework -**  
**Risk Measurement Tools: An Enterprise Wide Perspective**

**Risk Management Business Benefits**



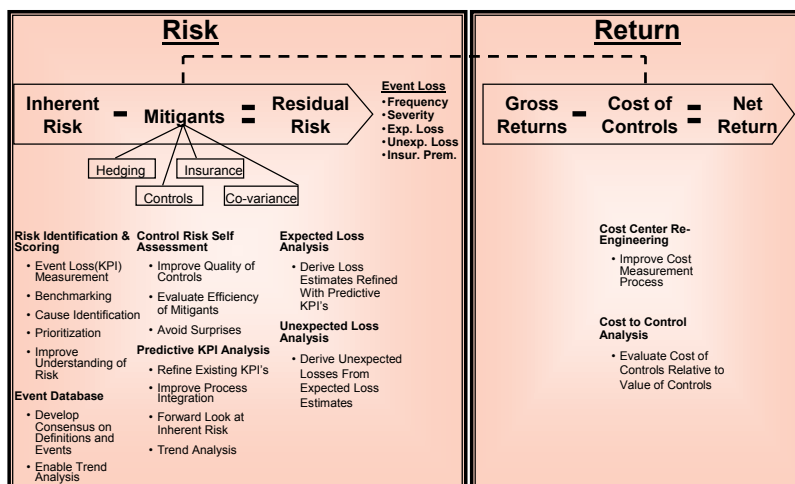
**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**

## Risk Management Business Benefits



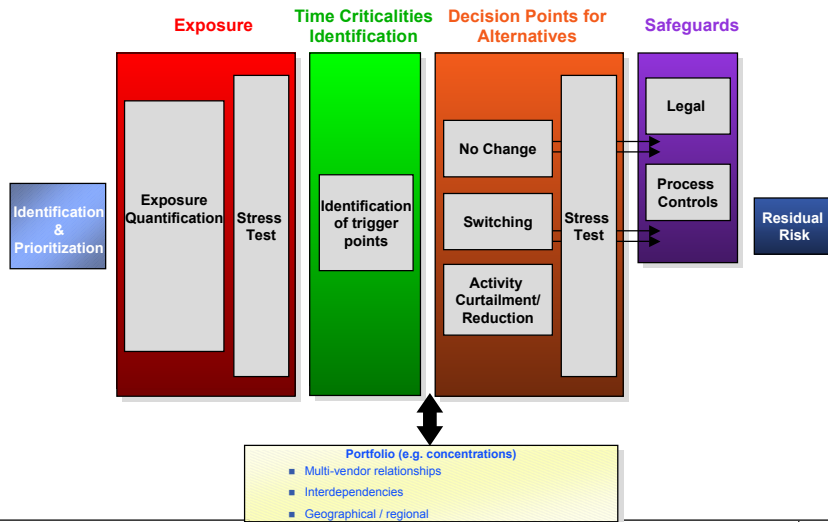
**RTB - Risk Management Philosophy, Methodology and Framework -  
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*Effective management of operational risk requires management to focus on risk and return*



**RTB - Risk Management Philosophy, Methodology and Framework -  
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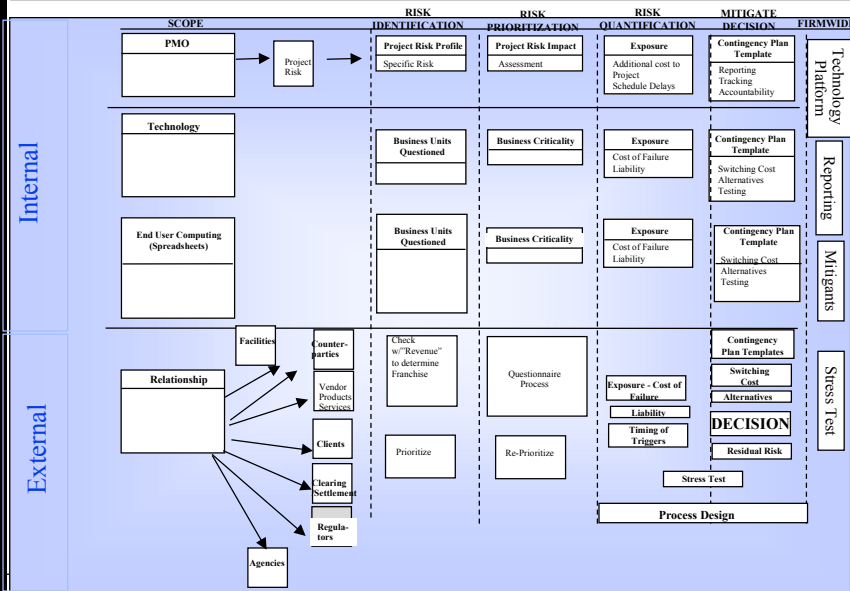
**Quantification/Decision Making Process**



SAIC & BearingPoint / RTB

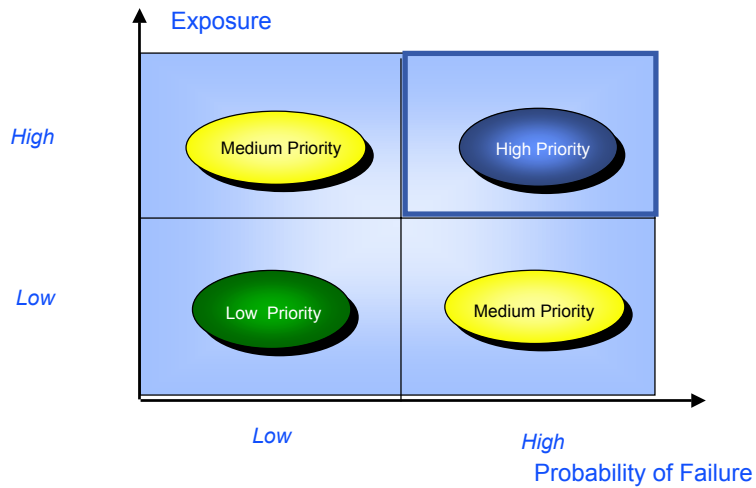
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**RTB - Risk Management Philosophy, Methodology and Framework -  
Risk Measurement Tools: An Enterprise Wide Perspective**



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**RTB - Risk Management Philosophy, Methodology and Framework -  
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## Regulatory Initiatives in Asset/ Liability Management

## Regulatory Initiatives In Risk Management

- OCC
  - Supervision By Risk Programs
  - Other Regulatory Guidance
- Federal Reserve
- Federal Financial Institution's Examination Council (FFIEC)

## OCC's Supervision By Risk Program

- **Identify risks**
  - 9 risks explicitly defined
- **Measurement of Risks**
  - Quantify each risk across the institution (low, moderate, high)
- **Evaluate risk management**
  - Ability to measure and monitor risk
  - Use of various risk mitigating techniques
  - Active control of risk by management and board
  - Quantify adequacy of risk management (strong, acceptable, weak)
- **The SAIC Model provided for Sensitivity Analysis and a Monte Carlo Simulation** to allow for Consideration of various changes in risks and pricing and the impact on envisioned scenarios – Variables can be changed for some key risk factors like:
  - Interest Rates for Cost of Funds and Borrowing Spreads
  - Loan Volumes
  - Operating Costs
  - Loan Losses

## OCC Uses 9 Risk Categories to Assess Risk Management at the Enterprise Level

- Credit Risk
- Interest Rate Risk
- Liquidity Risk
- Price Risk
- ~~Foreign Exchange Risk~~ (Not Applicable for RTB)
- Transaction Risk
- Compliance Risk
- Strategic Risk
- Reputation Risk

Other Important Risks:

- Capital Risk
- Operational Risk
- Technological Risk

**This may be the Most Important Page for RTB**

**How RTB will Measure and Control these Risks will be Vital for ALM Strategy & the Bank Success.**

## Overall Risk is Function of Quantity and Quality

OCC's Risk Matrix for Each Risk Category and Enterprise-wide

Quality of Risk Management	Weak	Moderate	High	Highest
	Acceptable	Low	Moderate	High
	Strong	Lowest	Low	Moderate
		Low	Moderate	High
		Quantity of Risk		

**RTB will need to Focus on a Quality of a Risk Management System,**

**While keeping Quantity of Risk Low to Moderate**



## OCC's Risk Management Program Requirement Has 4 Parts \*

- ❑ Risk Identification -- recognizing and understanding existing risk or new risks
- ❑ Risk Measurement -- accurate and timely measurement system(s)
- ❑ Risk Monitoring -- ensure timely review of risk positions and exceptions
- ❑ Risk Control -- establish and communicate limits through policies and procedures that define responsibility

\* Similar requirements used by Federal Reserve

**RTB would adopt similar risk assessment guidelines no matter what Structure It Selects.**

## Federal Reserve Approach

- ❑ Member Banks, BHCs and FBOs
- ❑ Six Risk Categories \*
- ❑ Essential elements:
  - Active Board and Management Oversight
  - Adequate Policies, procedures and limits
  - Adequate risk measurement, monitoring and MIS
  - Comprehensive internal controls
- ❑ Evaluation incorporated in management rating in CAMELS

\* Condensed version of the OCC's Categories

**RTB would adopt similar risk assessment guidelines no matter what Structure It Selects.**

## Recent Federal Reserve Risk Management Guidance

- ❑ Trading Activities Manual
- ❑ SR 95-51(Sup), Rating the Adequacy of Risk Management Processes and Internal Controls at State Member Banks and Bank Holding Companies
- ❑ SR 96-14(Sup), Risk-focused Safety and Soundness Examinations and Inspections
- ❑ ROCA Rating System, Foreign Banking Organizations

RTB would adopt similar risk assessment guidelines no matter what Structure It Selects.

## Overview of the CAMELS Rating System

### **“C” Capital Adequacy -- commensurate with existing and potential risk exposures**

#### **Old Basis**

- ☐ Level and quality of capital and overall financial condition
- ☐ Access to capital markets and other sources of capital
- ☐ Compliance with applicable laws and regulations

#### **Additional Bases**

- ☐ Nature and extent of risks
- ☐ Ability of management to identify, measure, monitor and control risks and emerging need for capital
- ☐ Balance sheet composition, nature and amount of intangible assets, market risk, concentration risk and risk associated with nontraditional activities
- ☐ Risk exposure represented by off-balance sheet activities

### **“A” Asset Quality -- quantity of existing and potential credit risk in loans, investments, and off balance sheet**

#### **Old basis**

- ☐ Level, distribution and trend of classified assets, non-accrual and restructured and delinquent loans and non-performing assets
- ☐ Adequacy of allowance
- ☐ Ability of management to administer assets
- ☐ Compliance with applicable laws and regulations

#### **Additional bases**

- ☐ Adequacy of underwriting standards and appropriateness of risk identification processes
- ☐ Adequacy of internal controls and management information systems

## **M” Management (and Board)**

**“M” Management (and Board) -- capacity to identify, measure, monitor and control institution’s risks and to ensure safe and sound operations and compliance with laws and regulations**

### **Old Basis**

- ☐ Level and quality of board and management oversight
- ☐ Compliance with laws and regulations

### **Additional bases**

- ☐ Corporate governance
- ☐ Ability of board and management to respond to changing circumstances and address risk
- ☐ Adequacy of and conformance with internal policies and controls
- ☐ Accuracy, timeliness and effectiveness of management information and risk monitoring systems
- ☐ Adequacy of audits, Independence and knowledge of audit committees, and internal controls
- ☐ Overall performance of the institution and the level of risk to which it is exposed

## **“E” Earnings -- quantity and quality of earnings, taking into account credit and market risks**

### **Old basis**

- ☐ Level, quality, and source of earnings
- ☐ Level of compliance with laws and regulations

### **Additional bases**

- ☐ Adequacy of budgeting systems, forecasting processes and management information systems
- ☐ Exposure to credit risk and adequacy of allowances
- ☐ Exposure to market risks -- interest rate, foreign exchange, and price

## **“L” Liquidity**

“L” Liquidity -- position and risk, current and prospective sources, and adequacy of funds management practices

Old bases

- ☐ Adequacy of liquidity sources
- ☐ Availability of assets readily convertible to cash without undue loss
- ☐ Access to money markets and other sources of funding
- ☐ Effectiveness of funds management strategies, liquidity policies, MIS and contingency funding plans
- ☐ Compliance with laws and regulations

Additional bases

- ☐ Competency of management to properly identify, measure, monitor and control liquidity risk

## **“S” Sensitivity to Market Risk**

“S” Sensitivity to Market Risk -- degree to which interest rates, foreign exchange, and price risks can affect assets, earnings, liquidity and capital

New Basis

- ☐ Sensitivity of net earnings or the economic value of capital to changes in interest rates under varying scenarios and stress environments
- ☐ Volume, composition, and volatility of foreign exchange or other trading positions
- ☐ Actual or potential volatility of earnings or capital because of changes in market valuation of trading portfolio of financial instruments
- ☐ Ability of management to identify, measure, monitor and control interest rate, price and foreign exchange